

Sub. a1  
16. A method of detecting the relative movement between first and second

members from a close position where the members are adjacent, and an open position where the members are separated, said method comprising the steps of:

installing a switch assembly on said first member, said switch assembly including a first elongated switch element, a second switch element disposed in spaced relationship to the first element and a ferromagnetic body located adjacent the first and second switch elements;

when said members are in said close position, using a magnetic field of sufficient strength to shift said ferromagnetic body in a switch-closed orientation in simultaneous contact with said first and second switch elements;

in response to relative movement of the members from said close to said open position, magnetically shifting said ferromagnetic body to a switch-open orientation out of contact with said second switch element; and

using an alarm control to generate a signal when said ferromagnetic body is shifted.

17. The method of claim 16, including the further step of using a magnet located

in said second member to provide said magnetic field of sufficient strength.

Sub. a2  
18. The method of claim 16, said first switch element being in a generally upright

orientation, with said second switch element spaced below the first switch element, said maintaining step comprising the step of maintaining the ferromagnetic body in a lower switch-closed orientation,

said magnetic shifting step comprising the step of shifting the ferromagnetic body upwardly to said switch-open orientation.

19. The method of claim 18, including the step of shifting said body upwardly using a retraction magnet located above said first element.

20. The method of claim 16, said first switch element comprising an elongated, rod-like member.

21. The method of claim 16, said second switch element being generally disc-shaped.

22. The method of claim 16, said body being spherical in shape.

23. A magnetic switch apparatus for detecting relative movement between first and second members from a close position where the members are adjacent, and an open position where the members are separated, said apparatus comprising a switch assembly for mounting to the first member, including a first, elongated switch element, a second switch element in spaced relationship to said first switch element, and a magnet assembly including a ferromagnetic body adjacent said first and second switch elements, said assembly operable to shift said ferromagnetic body in a switch-closed orientation in simultaneous contact with said first and second switch elements when said members are in said close position, and to shift said ferromagnetic body to a switch-open orientation out of contact with said second switch element in response to relative movement of the members to said open position.

24. The apparatus of claim 23, said body being spherical.

25. The apparatus of claim 23, said first switch element being generally rod-shaped in configuration.

26. The apparatus of claim 23, said second switch element being generally disc-shaped.

27. The apparatus of claim 26, said second switch element including a contact surface presenting a generally reversed conically shaped configuration.

28. The apparatus of claim 23, said magnet assembly further including a first magnet disposed above said first contact, and a second magnet for mounting to the second member.

29. The apparatus of claim 23, said first switch element being in a generally upright orientation, with said second switch element disposed below the first switch element.

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add B1  
add A1  
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